Appln. No.: 09/442,868 PATENT

Amend/Response filed Oct. 14, 2008
Replying to Office action of May 14, 2008

Attorney Docket No. 348162-991180 Customer No.: 26,379

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (**currently amended**) A method of communicating digital data from a computer system to a display device comprising:

receiving <u>and processing</u> an analog video signal from a computer system <u>via</u> receiver means for receiving and processing analog video signals, wherein the receiver means for receiving and processing includes a mode detection circuit, a processing circuit, a tuning circuit, a phase lock loop (PLL), and an analog-to-digital converter;

sampling the analog video signal to provide digital data;

performing compensation of the digital data including modifying data via means for scaling to compensate for differences in spatial and color resolution between the analog video signal and requirements of the display device;

detecting a predetermined data pattern from the digital data, wherein the predetermined data pattern corresponds to a frequency or resolution parameter of the analog signal; and

in response to detection of the predetermined data pattern, commencing a set-up process for converting a video signal into a display image of improved format for display on the display device, wherein the set-up process includes:

programming the computer system to precondition the received analog video signal with a calibration pattern having calibration features for enabling calibration, and

adjusting sampling via a feedback component that adjusts a sampling rate as a function of a number of cycles (n) of a sampling clock and a predetermined number (m) of a clock signal occurring between the calibration features; and

wherein the improved format enables more accurate display of original image data.

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2. (original) The method according to claim 1, wherein the predetermined data pattern

occurs a predetermined time interval after a horizontal sync pulse which is associated

with the analog video signal.

3. (original) The method according to claim 1, wherein the predetermined data pattern

occurs outside of a blanking interval for the analog video signal.

4. (canceled)

5. (previously presented) The method according to claim 1, wherein the set-up

process includes adjusting a sampling rate for sampling the analog video signal.

6. (previously presented) The method according to claim 1, wherein the set-up

process includes adjusting a sampling phase for sampling the analog video signal.

7. (previously presented) The method according to claim 1, wherein the set-up

process includes adjusting an orientation of a display image for the display device.

8. (original) The method according to claim 7, wherein said adjusting an orientation of

the display image comprises adjusting a sampling start time for the analog video signal

relative to a horizontal sync pulse.

9. (original) The method according to claim 7, wherein said adjusting an orientation of

the display image comprises adjusting a sampling start time for the analog video signal

relative to a vertical sync pulse.

10. (canceled)

11. (previously presented) The method according to claim 1, wherein the

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parameter is representative of a resolution of the analog video signal.

12. (previously presented) The method according to claim 1, wherein the analog

video signal is formed in accordance with a clock signal, the parameter being

representative of a frequency of the clock signal.

13. (original) The method according to claim 1, wherein the predetermined data

pattern is representative of a beginning of a horizontal blanking interval relative to a

horizontal sync pulse for the analog video signal.

14. (original) The method according to claim 13, wherein the predetermined data

pattern is utilized for adjusting a horizontal orientation of a display image for the display

device.

15. (original) The method according to claim 1, wherein the predetermined data

pattern is representative of a beginning of a vertical blanking interval relative to a

vertical sync pulse for the analog video signal.

16. (original) The method according to claim 15, wherein the predetermined data

pattern is utilized for adjusting a vertical orientation of a display image for the display

device.

17. (currently amended) An apparatus for communicating digital data from a

computer system to a display device comprising:

a-receiver means for receiving and processing analog video signals, wherein the

receiver means for receiving and processing includes a mode detection circuit, a

processing circuit, a tuning circuit, a phase lock loop (PLL), and an analog-to-digital

converter that receives an analog video signal from a computer system;

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a sampling component that samples the analog video signal to detect a predetermined data pattern of a frequency or resolution parameter of the analog signal;

a processing component that recovers digital data from the detected predetermined data pattern;

a compensation component that performs compensation of the digital data including modifying data via means for scaling to compensate for differences in spatial and color resolution between the analog video signal and requirements of the display device;

feedback elements coupled to adjust a sampling rate as a function of a number of cycles (n) of a sampling clock and a predetermined number (m) of a clock signal occurring between the calibration features;

<u>a preconditioning component that preconditions the received analog video signal</u>
<u>with a calibration pattern having calibration features for enabling calibration, and</u>

a display controlling component that commences a set-up process, in response to detection of the predetermined data pattern, for converting a video signal into a display image of improved format for display on the display device, wherein the set-up process includes adjusting sampling via a feedback component, and wherein the improved format enables more accurate display of original image data.

- 18. (**original**) The apparatus according to claim 17, wherein the predetermined data pattern occurs a predetermined time interval after a horizontal sync pulse which is associated with the analog video signal.
- 19. (**original**) The apparatus according to claim 17, wherein the predetermined data pattern occurs outside of a blanking interval for the analog video signals.

## 20. (canceled)

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21. (previously presented) The apparatus according to claim 17, wherein the set-up

process includes adjusting a sampling rate for sampling the analog video signal.

22. (previously presented) The apparatus according to claim 17, wherein the set-up

process includes adjusting a sampling phase for sampling the analog video signal.

23. (previously presented) The apparatus according to claim 17, wherein the set-up

process includes adjusting an orientation of a display image for the display device.

24. (original) The apparatus according to claim 23, wherein said adjusting an

orientation of the display image comprises adjusting a sampling start time for the analog

video signal relative to a horizontal sync pulse.

25. (original) The apparatus according to claim 23, wherein said adjusting an

orientation of the display image comprises adjusting a sampling start time for the analog

video signal relative to a vertical sync pulse.

26. (canceled)

27. (previously presented) The apparatus according to claim 17, wherein the

parameter is representative of a resolution of the analog video signal.

28. (previously presented) The apparatus according to claim 17, wherein the analog

video signal is formed in accordance with a clock signal, the parameter being

representative of a frequency of the clock signal.

29. (original) The apparatus according to claim 17, wherein the predetermined data

pattern is representative of a beginning of a horizontal blanking interval relative to a

horizontal sync pulse for the analog video signal.

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30. (**original**) The apparatus according to claim 29, wherein the predetermined data pattern is utilized for adjusting a horizontal orientation of a display image for the display

device.

31. (original) The apparatus according to claim 17, wherein the predetermined data

pattern is representative of a beginning of a vertical blanking interval relative to a

vertical sync pulse for the analog video signal.

32. (original) The apparatus according to claim 31, wherein the predetermined data

pattern is utilized for adjusting a vertical orientation of a display image for the display

device.

33. (previously presented) The method according to claim 5, wherein the set-up

process includes adjusting an orientation of a display image for the display device.

34. (previously presented) The apparatus according to claim 21, wherein the set-up

process includes adjusting an orientation of a display image for the display device.

35. (previously presented) The method according to claim 11, wherein the set-up

process includes adjusting an orientation of a display image for the display device

36. (previously presented) The apparatus according to claim 27, wherein the set-up

process includes adjusting an orientation of a display image for the display device.